Twin Cities Campus

Civil Engineering M.C.E.

CSENG Civil, Envrn & Geo-Eng (CEGE)

College of Science and Engineering

Link to a list of faculty for this program.

Contact Information:
Department of Civil, Environmental, and Geo-Engineering, University of Minnesota, 122 Civil Engineering Building, 500 Pillsbury Drive S.E., Minneapolis, MN 55455 (612-625-5522; fax: 612-626-7750)
Email: cegesps@umn.edu
Website: http://www.cege.umn.edu

- Program Type: Master's
- Requirements for this program are current for Fall 2016
- Length of program in credits: 30
- This program does not require summer semesters for timely completion.
- Degree: Master of Civil Engineering

Along with the program-specific requirements listed below, please read the General Information section of the catalog website for requirements that apply to all major fields.

Civil engineering emphases are available in environmental engineering (e.g., pollutant fate and transport, process modeling, soil and groundwater remediation, water and wastewater treatment), geomechanics (e.g., fracture and localization, groundwater flow, stability and liquefaction, wave and shock propagation), structural engineering (e.g., computational and structural mechanics, earthquake engineering, infrastructure performance and durability, new systems and materials), transportation engineering (e.g., intelligent transportation systems, pavement design and materials, transportation economics, traffic safety), and water resources engineering (e.g., earthscape processes, environmental and biological systems, hydrologic and climate dynamics, hydrodynamics, and turbulence).

The master of civil engineering (M.C.E.) degree is designed for the practicing engineer who would like to obtain an advanced degree on a part-time or full-time basis. Students who intend to proceed to the Ph.D. program or who think they may later wish to be admitted to the Ph.D. program should apply for the master of science program. Students are expected to follow a coherent program of coursework in one of the following subareas of civil engineering: environmental, geomechanics, structural, transportation, or water resources engineering. The program is selected with the help of a faculty adviser and approved by the director of graduate studies. In addition to completing graduate-level courses, students must demonstrate professional competence either by carrying out and defending a design project or by taking a coursework-related final oral exam (without a project).

The degree typically takes 2-3 semesters (12-18 months) to complete on a full-time basis or 6-8 semesters on a part-time basis.

Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

Prerequisites for Admission

The preferred undergraduate GPA for admittance to the program is 3.00.

An ABET-accredited, four-year bachelor's degree in engineering is required for admission.

Other requirements to be completed before admission:
The application deadlines are December 3 for fall admission and August 31 for spring admission. All materials must be submitted to the online application. Additional information is available at http://www.cege.umn.edu/prospective/graduate/how-to-apply.html

Applicants must submit their test score(s) from the following:

- GRE

International applicants must submit score(s) from one of the following tests:

- TOEFL
  - Internet Based - Total Score: 79
  - Internet Based - Writing Score: 21
  - Internet Based - Reading Score: 19
  - Paper Based - Total Score: 550

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- IELTS
  - Total Score: 6.5
- MELAB
  - Final score: 80

Key to test abbreviations(GRE, TOEFL, IELTS, MELAB).

For an online application or for more information about graduate education admissions, see the General Information section of the catalog website.

Program Requirements

Plan A: Plan A requires 20 major credits, up to null credits outside the major, and 10 thesis credits.The final exam is oral.

Plan C: Plan C requires 30 major credits and up to null credits outside the major.The is no final exam.

This program may be completed with a minor.

Use of 4xxx courses toward program requirements is permitted under certain conditions with adviser approval.

A minimum GPA of 3.00 is required for students to remain in good standing.

The M.C.E. degree requires 30 credits and is offered under two plans. Plan A requires preparation of a thesis/design project. The thesis/design project must be carried out by the student in consultation with a faculty adviser. Plan C is a coursework-only degree program.

Required Courses

Any courses at the 5xxx and 8xxx level from the following programs may be used: AEM, AST, BBE, BMEN, CEGE, CHEM, CHEN, CSCI, EE, ESCI, IE, MATH, MATS, ME, PHYS, STAT. Use of 4xxx level courses must be approved by the Director of Graduate Studies and a maximum of 8 credits may be included. The following 4xxx courses may not be used: CEGE 4301, 4401, 4501, 4502, and 4522. Six credits in a minor may be included in the course credit total.

Seminar

Students may include one seminar credit in the course credit total.

CEGE 8200 - Seminar: Transportation (1.0 cr)
or CEGE 8300 - Seminar: Geomechanics (1.0 cr)
or CEGE 8400 - Seminar: Structures (1.0 cr)
or CEGE 8500 - Seminar: Environmental (1.0 cr)

Plan A

Plan A requires a minimum of 20 course credits and 10 thesis credits for the design project.

CEGE 8777 - Thesis Credits: Master's (1.0 - 18.0 cr)

Plan C

Plan C requires a minimum of 30 credits of coursework chosen in consultation with adviser.

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Information current as of March 28, 2024